Appl. No. 09/838,512
Atty. Docket No. 8045M
Amdt. dated 4/29/2004
Reply to Office Action of 3/3/2004
Customer No. 27752

AMENDMENTS TO THE CLAIMS

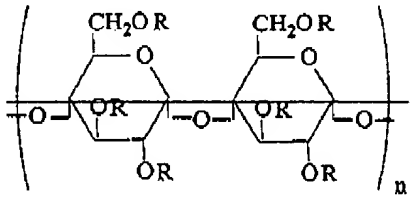
This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A laundry and/or fabric care composition comprising:

a) from about 1% to about 80% by weight of surfactants selected from the group consisting of nonionic, anionic, cationic, amphoteric, zwitterionic surfactants, or mixtures thereof; and

b) from about 0.1% to about 5.0% by weight of ~~a mixture of~~ modified amylopectin ~~starch based~~ polymers and/or oligomers of the general ~~formulas, alone or in combination~~ formula:



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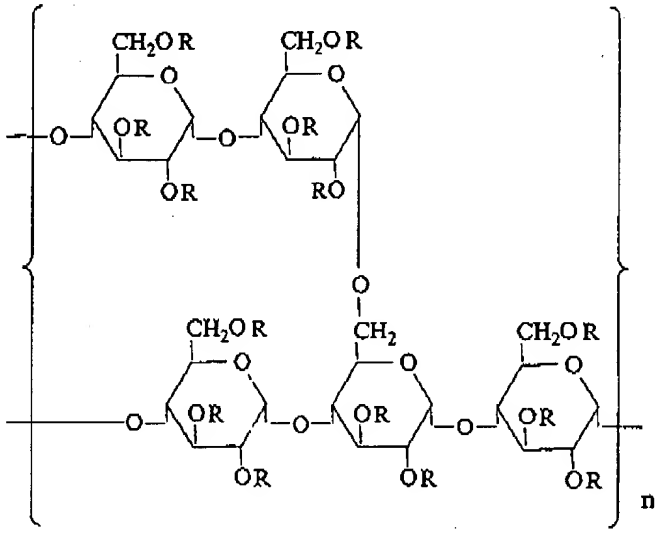

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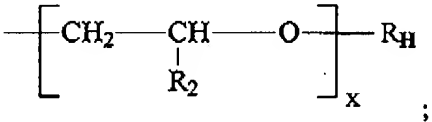
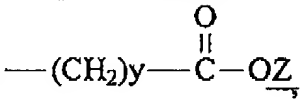
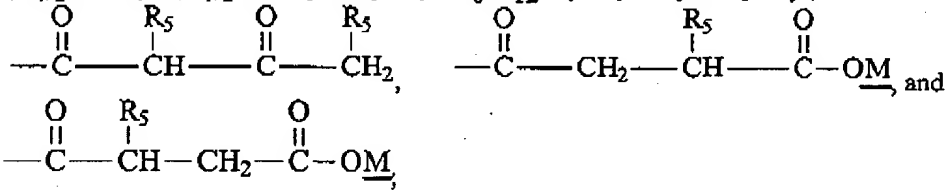
wherein each R is selected from the group consisting of R_2, R_C, and



;

wherein:

- each R_2 is independently selected from the group consisting of H and C_1-C_4 alkyl;
- each R_C is 
  wherein each Z is independently selected from the group consisting of M, R_2, R_C, and R_H;
- each R_H is independently selected from the group consisting of C_5 -C_{20} alkyl, C_5-C_7 cycloalkyl, C_7-C_{20} alkylaryl, C_7-C_{20} arylalkyl, substituted alkyl, hydroxyalkyl, C_1-C_{20} alkoxy-2-hydroxyalkyl, C_7-C_{20} alkylaryloxy-2-hydroxyalkyl, $(R_4)_2N$-alkyl, $(R_4)_2N$-2-hydroxyalkyl, $(R_4)_3$ N-alkyl, $(R_4)_3$ N-2-hydroxyalkyl, C_6-C_{12} aryloxy-2-hydroxyalkyl,
  
- each R_4 is independently selected from the group consisting of H, C_1-C_{20} alkyl, C_5-C_7 cycloalkyl, C_7-C_{20} alkylaryl, C_7-C_{20} arylalkyl, aminoalkyl, alkylaminoalkyl,

dialkylaminoalkyl, piperidinoalkyl, morpholinoalkyl, cycloalkylaminoalkyl and hydroxyalkyl;

- each R_5 is independently selected from the group consisting of H, C_1 -C_{20} alkyl, C_5-C_7 cycloalkyl, C_7-C_{20} alkylaryl, C_7-C_{20} arylalkyl, substituted alkyl, hydroxyalkyl, $(R_4)_2N$-alkyl, and $(R_4)_3$ N-alkyl;

wherein:

M is a suitable cation selected from the group consisting of Na^+, K^+, $1/2Ca^{2+}$, $1/2Mg^{2+}$, or $^+NH_jR_k$ wherein j and k are independently from 0 to 4 and wherein j + k is 4 and R in this formula is any moiety capable of forming a cation, ~~preferably methyl and/or ethyl group or derivative;~~

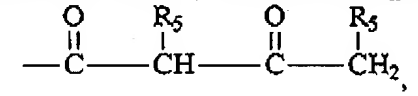
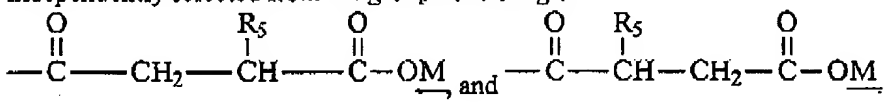
each x is from 0 to about 5;

each y is from about 1 to about 5; and

provided that:

- the Degree of Substitution for group R_H is between about 0.001 and about 0.1~~, more preferably between about 0.005 and about 0.05, and most preferably between about 0.01 and about 0.05;~~
- the Degree of Substitution for group R_C wherein Z is H or M is between about 0 and about 2.0~~, more preferably between about 0.05 and about 1.0, and most preferably between about 0.1 and about 0.5;~~
- if any R_H bears a positive charge, it is balanced by a suitable anion; and
- two R_4's on the same nitrogen can together form a ring structure selected from the group consisting of piperidine and morpholine.

2. (Original) The laundry and/or fabric care composition of claim 1, wherein each R_H is independently selected from the group consisting of C_5 -C_{20} alkyl, C_5-C_7 cycloalkyl, C_7-C_{20} alkylaryl, C_7-C_{20} arylalkyl, substituted alkyl, hydroxyalkyl, C_1-C_{20} alkoxy-2-hydroxyalkyl, C_7-C_{20} alkylaryloxy-2-hydroxyalkyl, $(R_4)_2N$-alkyl, $(R_4)_2N$-2-hydroxyalkyl, $(R_4)_3$ N-alkyl, $(R_4)_3$ N-2-hydroxyalkyl, and C_6-C_{12} aryloxy-2-hydroxyalkyl.

3. (Currently amended) The laundry and/or fabric care composition of claim 1, wherein each R_H is independently selected from the group consisting of  ,  and

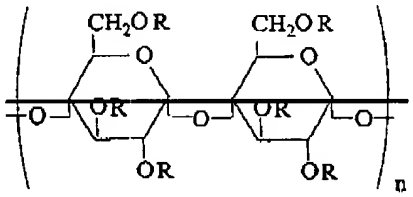
4. (Currently amended) The laundry and/or fabric care composition of claim 1, wherein the modified amylopectin ~~starch based~~ polymer and/or oligomer has an average molecular weight of from about 5,000 to about 2,000,000.

5. (Currently amended) The laundry and/or fabric care composition of claim 1, wherein the modified amylopectin ~~starch based~~ polymer and/or oligomer has an average molecular weight of from about 10,000 to about 1,000,000.

6. (Currently amended) A laundry additive composition comprising:

a) from about 1% to about 80% by weight of water; and

b) from about 0.1% to about 80.0% by weight of modified amylopectin ~~starch based~~ polymers and/or oligomers of the general formula ~~formulas, alone or in combination~~:



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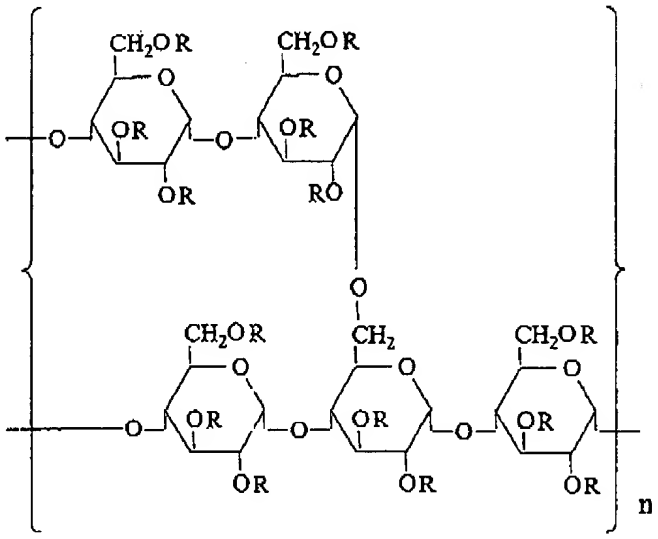

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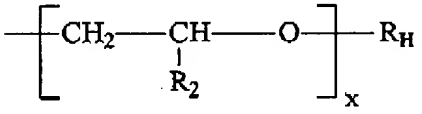
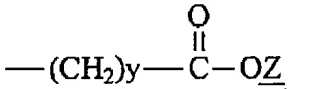
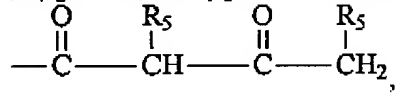
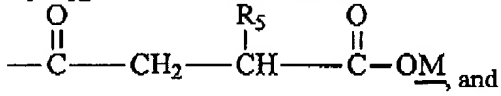
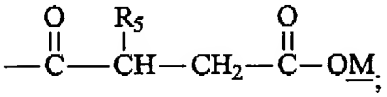
wherein each R is selected from the group consisting of R_2, R_C, and



;

wherein:

- each R_2 is independently selected from the group consisting of H and C_1-C_4 alkyl;
- each R_C is  ,
  wherein each Z is independently selected from the group consisting of M, R_2, R_C, and R_H;
- each R_H is independently selected from the group consisting of C_5 -C_{20} alkyl, C_5-C_7 cycloalkyl, C_7-C_{20} alkylaryl, C_7-C_{20} arylalkyl, substituted alkyl, hydroxyalkyl, C_1-C_{20} alkoxy-2-hydroxyalkyl, C_7-C_{20} alkylaryloxy-2-hydroxyalkyl, $(R_4)_2N$-alkyl, $(R_4)_2N$-2-hydroxyalkyl, $(R_4)_3$ N-alkyl, $(R_4)_3$ N-2-hydroxyalkyl, C_6-C_{12} aryloxy-2-hydroxyalkyl,
   ,
   , and
   ;
- each R_4 is independently selected from the group consisting of H, C_1-C_{20} alkyl, C_5-C_7 cycloalkyl, C_7-C_{20} alkylaryl, C_7-C_{20} arylalkyl, aminoalkyl, alkylaminoalkyl,

dialkylaminoalkyl, piperidinoalkyl, morpholinoalkyl, cycloalkylaminoalkyl and hydroxyalkyl;

- each R_5 is independently selected from the group consisting of H, C_1 -C_{20} alkyl, C_5-C_7 cycloalkyl, C_7-C_{20} alkylaryl, C_7-C_{20} arylalkyl, substituted alkyl, hydroxyalkyl, $(R_4)_2N$-alkyl, and $(R_4)_3$ N-alkyl;

wherein:

M is a suitable cation selected from the group consisting of Na^+, K^+, $1/2Ca^{2+}$, $1/2Mg^{2+}$, or $^+NH_jR_k$ wherein j and k are independently from 0 to 4 and wherein j + k is 4 and R in this formula is any moiety capable of forming a cation~~, preferably methyl and/or ethyl group or derivative;~~

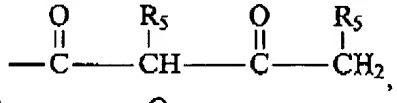
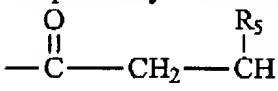
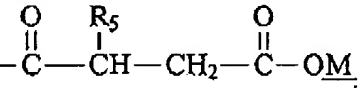
each x is from 0 to about 5;

each y is from about 1 to about 5; and

provided that:

- the Degree of Substitution for group R_H is between about 0.001 and about 0.1, ~~more preferably between about 0.005 and about 0.05, and most preferably between about 0.01 and about 0.05~~;
- the Degree of Substitution for group R_C wherein Z is H or M is between about 0 and about 2.0~~, more preferably between about 0.05 and about 1.0, and most preferably between about 0.1 and about 0.5~~;
- if any R_H bears a positive charge, it is balanced by a suitable anion; and
- two R_4's on the same nitrogen can together form a ring structure selected from the group consisting of piperidine and morpholine.

7. (Original) The laundry additive composition of claim 6, wherein each R_H is independently selected from the group consisting of C_5 -C_{20} alkyl, C_5-C_7 cycloalkyl, C_7-C_{20} alkylaryl, C_7-C_{20} arylalkyl, substituted alkyl, hydroxyalkyl, C_1-C_{20} alkoxy-2-hydroxyalkyl, C_7-C_{20} alkylaryloxy-2-hydroxyalkyl, $(R_4)_2N$-alkyl, $(R_4)_2N$-2-hydroxyalkyl, $(R_4)_3$ N-alkyl, $(R_4)_3$ N-2-hydroxyalkyl, and C_6-C_{12} aryloxy-2-hydroxyalkyl.

8. (Curently amended) The laundry additive composition of claim 6, wherein each R_H is independently selected from the group consisting of  ,  , and  .

9. (Curently amended) The laundry additive composition of claim 6, wherein the modified ~~starch-based~~ amylopectin polymer and/or oligomer has an average molecular weight of from about 5,000 to about 2,000,000.

10. (Curently amended) The laundry additive composition of claim 6, wherein the modified ~~starch-based~~ amylopectin polymer and/or oligomer has an average molecular weight of from about 10,000 to about 1,000,000.

11. (Original) The laundry additive composition of claim 1, wherein the Degree of Substitution for group R_H is between about 0.01 and 0.05.

12. (Original) The laundry additive composition of claim 1, wherein the Degree of Substitution for group R_C wherein Z is H or M is between about 0.4 and 0.7.

13. (Original) The laundry additive composition of claim 6, wherein the Degree of Substitution for group R_H is between about 0.01 and 0.05.

14. (Original) The laundry additive composition of claim 6, wherein the Degree of Substitution for group R_C wherein Z is H or M is between about 0.4 and 0.7.

15. (Curently amended) A method for treating a fabric in need of treatment comprising contacting the fabric with a modified ~~starch based~~ amylopectin polymer and/or oligomer material according to Claim 1 such that the fabric is treated.

16. (Curently amended) The method according to Claim 15 wherein said ~~modified starch based~~ polymer and/or oligomer material is selected from the group consisting of: amylose, amylopectin and mixtures thereof.

Claims 17-21 (Cancel)